

# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO  
Eastman Chemical Company

AUTHORIZING THE OPERATION OF  
Eastman Chemical Texas Operations  
U4 - HCC-4 Olefin  
All Other Basic Organic Chemical Manufacturing

LOCATED AT  
Harrison County, Texas  
Latitude 32° 26' 15" Longitude 94° 41' 37"  
Regulated Entity Number: RN100219815

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: Q1973 Issuance Date: \_\_\_\_\_

\_\_\_\_\_  
For the Commission

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## **General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

## **Special Terms and Conditions:**

### **Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:
  - A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.
  - B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.
  - C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.
  - D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.
  - E. Emission units subject to 40 CFR Part 63, Subparts A, YY, and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter

113, Subchapter C, § 113.100, § 113.560, and § 113.1130 which incorporates the 40 CFR Part 63 Subpart by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):
  - A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements
  - B. Title 30 TAC § 101.3 (relating to Circumvention)
  - C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ
  - D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ
  - E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)
  - F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)
  - G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)
  - H. Title 30 TAC § 101.221 (relating to Operational Requirements)
  - I. Title 30 TAC § 101.222 (relating to Demonstrations)
  - J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)
3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:
  - A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:
    - (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)
    - (ii) Title 30 TAC § 111.111(a)(1)(E)
    - (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)
    - (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that

does not obstruct the transmission of light. Vents, as specified in the “Applicable Requirements Summary” attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

- (1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.
- (2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.
- (3) Records of all observations shall be maintained.
- (4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
- (5) Compliance Certification:
  - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).
  - (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is

determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

- (c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

- (i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)
- (ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)
- (iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO<sub>x</sub>, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:
  - (1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.
  - (2) Records of all observations shall be maintained.
  - (3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.
  - (4) Compliance Certification:
    - (a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the

applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

- (b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.
- C. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.
- D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).
- E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:
  - (i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)
  - (ii) Sources with an effective stack height ( $h_e$ ) less than the standard effective stack height ( $H_e$ ), must reduce the allowable emission level by multiplying it by  $[h_e/H_e]^2$  as required in 30 TAC § 111.151(b)
  - (iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)
- 4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:
  - A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)
  - B. Title 40 CFR § 60.8 (relating to Performance Tests)
  - C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)
  - D. Title 40 CFR § 60.12 (relating to Circumvention)
  - E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)
  - F. Title 40 CFR § 60.14 (relating to Modification)

- G. Title 40 CFR § 60.15 (relating to Reconstruction)
  - H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)
5. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 61, unless otherwise stated in the applicable subpart:
- A. Title 40 CFR § 61.05 (relating to Prohibited Activities)
  - B. Title 40 CFR § 61.07 (relating to Application for Approval of Construction or Modification)
  - C. Title 40 CFR § 61.09 (relating to Notification of Start-up)
  - D. Title 40 CFR § 61.10 (relating to Source Reporting and Request Waiver)
  - E. Title 40 CFR § 61.12 (relating to Compliance with Standards and Maintenance Requirements)
  - F. Title 40 CFR § 61.13 (relating to Emissions Tests and Waiver of Emission Tests)
  - G. Title 40 CFR § 61.14 (relating to Monitoring Requirements)
  - H. Title 40 CFR § 61.15 (relating to Modification)
  - I. Title 40 CFR § 61.19 (relating to Circumvention)
6. For facilities where total annual benzene quantity from waste is greater than or equal to 10 megagrams per year and subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.342(c)(1)(i) - (iii) (relating to Standards: General)
  - B. Title 40 CFR § 61.342(c)(2) (relating to Standards: General)
  - C. Title 40 CFR § 61.342(f)(1), and (2) (relating to Standards: General)
  - D. Title 40 CFR § 61.342(g) (relating to Standards: General)
  - E. Title 40 CFR § 61.350(a) and (b) (relating to Standards: Delay of Repair)
  - F. Title 40 CFR § 61.355(a)(1)(iii), (a)(2), (a)(6), (b), and (c)(1) - (3) (relating to Test Methods, Procedures, and Compliance Provisions)
  - G. Title 40 CFR § 61.356(a) (relating to Recordkeeping Requirements)
  - H. Title 40 CFR § 61.356(b), and (b)(1) (relating to Recordkeeping Requirements)
  - I. Title 40 CFR § 61.356(b)(5) (relating to Recordkeeping Requirements)
  - J. Title 40 CFR § 61.356(c) (relating to Recordkeeping Requirements)
  - K. Title 40 CFR § 61.357(a), (d)(1), (d)(2) (d)(6) and (d)(8) (relating to Reporting Requirements)



- L. Waste generated by remediation activities at these facilities are subject to the requirements identified under 40 CFR § 61.342 for treatment and management of waste
7. For facilities with containers subject to emission standards in 40 CFR Part 61, Subpart FF, the permit holder shall comply with the following requirements:
- A. Title 40 CFR § 61.345(a)(1) - (3), (b), and (c) (relating to Standards: Containers)
  - B. Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)
  - C. Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)
  - D. Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)
8. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.
9. For transfer of waste from ethylene production facilities subject to 40 CFR Part 63, Subpart YY the permit holder shall comply with the following requirements (Title 30 TAC Chapter 113, Subchapter C, § 113.560 incorporated by reference):
- A. Title 40 CFR § 63.1096(a) - (d) (Title 30 TAC Chapter 113, Subchapter C, § 113.550 incorporated by reference)
  - B. Title 40 CFR § 63.1109(a) and (c)
10. For benzene laden waste streams from ethylene process facilities subject to 40 CFR Part 63, Subpart YY with total annual benzene quantity from the facility of 10 megagrams per year or more the permit holder shall comply with the following requirements as specified in 40 CFR § 63.1095(b)(2) (Title 30 TAC Chapter 113, Subchapter C, § 113.560 incorporated by reference):
- A. For facilities with waste managed in containers the permit holder shall comply with the following requirements:
    - (i) Title 40 CFR § 61.355(h) (relating to Test Methods, Procedures and Compliance Provisions)
    - (ii) Title 40 CFR § 61.356(g) (relating to Recordkeeping Requirements)
    - (iii) Title 40 CFR § 61.356(h) (relating to Recordkeeping Requirements)
11. For site remediation projects subject to 40 CFR Part 63, Subpart GGGGG that are completed within 30 consecutive calendar days the permit holder shall comply with 40 CFR § 63.7884(b), (b)(1) - (3) (Title 30 TAC, Subchapter C, § 113.1160 incorporated by reference).
12. The permit holder shall comply with certified registrations submitted to the TCEQ for purposes of establishing federally enforceable emission limits. A copy of the certified registration shall be maintained with the permit. Records sufficient to demonstrate compliance with the established limits shall be maintained. The certified registration and records demonstrating compliance shall be provided, on request, to representatives of the appropriate TCEQ regional office and any local air pollution control agency having jurisdiction over the site. The permit holder shall submit updated certified registrations when changes at the site require establishment of new emission

limits. If changes result in emissions that do not remain below major source thresholds, the permit holder shall submit a revision application to codify the appropriate requirements in the permit.

### **Additional Monitoring Requirements**

13. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time or minimum frequency specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

### **New Source Review Authorization Requirements**

14. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:
  - A. Are incorporated by reference into this permit as applicable requirements
  - B. Shall be located with this operating permit
  - C. Are not eligible for a permit shield
15. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.
16. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).
17. The permit holder shall comply with the following requirements for Air Quality Standard Permits:
  - A. Registration requirements listed in 30 TAC § 116.611, unless otherwise provided for in an Air Quality Standard Permit

- B. General Conditions listed in 30 TAC § 116.615, unless otherwise provided for in an Air Quality Standard Permit
- C. Requirements of the non-rule Air Quality Standard Permit for Pollution Control Projects

### **Compliance Requirements**

- 18. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.
- 19. Use of Discrete Emission Credits to comply with the applicable requirements:
  - A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:
    - (i) Title 30 TAC Chapter 115
    - (ii) Title 30 TAC Chapter 117
    - (iii) If applicable, offsets for Title 30 TAC Chapter 116
    - (iv) Temporarily exceed state NSR permit allowables
  - B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:
    - (i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)
    - (ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4
    - (iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)
    - (iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122
    - (v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

### **Risk Management Plan**

- 20. For processes subject to 40 CFR Part 68 and specified in 40 CFR § 68.10, the permit holder shall comply with the requirements of the Accidental Release Prevention Provisions in 40 CFR Part 68. The permit holder shall submit to the appropriate agency either a compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR § 68.10(a), or as part of the compliance certification submitted under this permit, a certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of a risk management plan.

### **Protection of Stratospheric Ozone**

21. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:
  - A. The permit holder shall comply with 40 CFR Part 82, Subpart H related to Halon Emissions Reduction requirements as specified in 40 CFR § 82.250 - § 82.270 and the applicable Part 82 Appendices.

### **Permit Location**

22. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

### **Permit Shield (30 TAC § 122.148)**

23. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

## **Attachments**

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

### **Applicable Requirements Summary**

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Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
OL225B1A	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-0001	30 TAC Chapter 111, Visible Emissions	No changing attributes.
OL225B1A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60D-0001	40 CFR Part 60, Subpart D	No changing attributes.
OL225B1A	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-0001	40 CFR Part 63, Subpart DDDDD	No changing attributes.
OL225B1B	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	N/A	R1111-0001	30 TAC Chapter 111, Visible Emissions	No changing attributes.
OL225B1B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60D-0001	40 CFR Part 60, Subpart D	No changing attributes.
OL225B1B	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	63DDDDD-0001	40 CFR Part 63, Subpart DDDDD	No changing attributes.
OL225FL1	FLARES	N/A	R1111-0001	30 TAC Chapter 111, Visible Emissions	No changing attributes.
OL225FL1	FLARES	N/A	60A-0001	40 CFR Part 60, Subpart A	No changing attributes.
OL225FL1	FLARES	N/A	63A-0001	40 CFR Part 63, Subpart A	No changing attributes.
OL225T1101	STORAGE TANKS/VESSELS	N/A	63YY-0005	40 CFR Part 63, Subpart YY	No changing attributes.
OL225T1102	STORAGE TANKS/VESSELS	N/A	63YY-0005	40 CFR Part 63, Subpart YY	No changing attributes.
OL225T910	STORAGE TANKS/VESSELS	N/A	63YY-0006	40 CFR Part 63, Subpart YY	No changing attributes.

### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
OL226FG1	FUGITIVE EMISSION UNITS	N/A	63YY-0003	40 CFR Part 63, Subpart YY	No changing attributes.
OL226T202	STORAGE TANKS/VESSELS	N/A	63YY-0007	40 CFR Part 63, Subpart YY	No changing attributes.
OL226T701	STORAGE TANKS/VESSELS	N/A	63YY-0005	40 CFR Part 63, Subpart YY	No changing attributes.
OL226T702	STORAGE TANKS/VESSELS	N/A	63YY-0005	40 CFR Part 63, Subpart YY	No changing attributes.
OL226T914	STORAGE TANKS/VESSELS	N/A	63YY-0006	40 CFR Part 63, Subpart YY	No changing attributes.
OL227D301	DISTILLATION OPERATIONS	N/A	60NNN-0001a	40 CFR Part 60, Subpart NNN	Subpart NNN Control Device = Boiler or process heater design heat input capacity greater than or equal to 44 MW (150 MMBtu/hr).
OL227D301	DISTILLATION OPERATIONS	N/A	60NNN-0001b	40 CFR Part 60, Subpart NNN	Subpart NNN Control Device = Flare.
OL227D301	DISTILLATION OPERATIONS	N/A	60NNN-0001c	40 CFR Part 60, Subpart NNN	Subpart NNN Control Device = Boiler or process heater design heat input capacity less than 44 MW (150 MMBtu/hr).
OL227T701	STORAGE TANKS/VESSELS	N/A	63YY-0007	40 CFR Part 63, Subpart YY	No changing attributes.
OL229OW	TREATMENT PROCESS	N/A	63YY-0008	40 CFR Part 63, Subpart YY	No changing attributes.
OL229R100	REACTOR	N/A	60RRR-0001a	40 CFR Part 60, Subpart RRR	Control Device = Flare that meets the requirements of 40 CFR § 60.18.



### Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
OL229R100	REACTOR	N/A	60RRR-0001b	40 CFR Part 60, Subpart RRR	Control Device = Boiler or process heater with design heat input less than 44 MW (150 MMBTU/hr)., Secondary Fuel = The vent stream is introduced with the primary fuel.
OL229R100	REACTOR	N/A	60RRR-0001c	40 CFR Part 60, Subpart RRR	Control Device = Boiler or process heater with design heat input of 44 MW (150 MMBTU/hr) or greater.
OL229T704	STORAGE TANKS/VESSELS	N/A	63YY-0004	40 CFR Part 63, Subpart YY	No changing attributes.
OL229T708	STORAGE TANKS/VESSELS	N/A	63YY-0007	40 CFR Part 63, Subpart YY	No changing attributes.
OL229TACT	STORAGE TANKS/VESSELS	N/A	63YY-0006	40 CFR Part 63, Subpart YY	No changing attributes.
OL229WW1	TREATMENT PROCESS	N/A	63YY-0002	40 CFR Part 63, Subpart YY	No changing attributes.
OL265T1003	STORAGE TANKS/VESSELS	N/A	63YY-0005	40 CFR Part 63, Subpart YY	No changing attributes.
PROHCC4	CHEMICAL MANUFACTURING PROCESS	N/A	63YY-0001	40 CFR Part 63, Subpart YY	No changing attributes.

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
OL225B1A	EP	R1111-0001	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
OL225B1A	EU	60D-0001	PM	40 CFR Part 60, Subpart D	§ 60.42(a)(1)	On/after the §60.8 tests, no affected facility shall emit gases containing particulate matter in excess of 43 ng/J heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue.	§ 60.46(a) § 60.46(b)(1) [G]§ 60.46(b)(2) [G]§ 60.46(d)(1) § 60.46(d)(2) [G]§ 60.46(d)(3) § 60.46(d)(6) § 60.46(d)(7) ** See Periodic Monitoring Summary	None	None
OL225B1A	EU	60D-0001	PM (Opacity)	40 CFR Part 60, Subpart D	§ 60.42(a)(2)	On/after the performance tests of §60.8, no affected facility shall emit gases exhibiting greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.	§ 60.45(b)(1) § 60.45(b)(7) [G]§ 60.45(b)(7)(i) [G]§ 60.45(b)(7)(ii) § 60.45(b)(7)(iii) § 60.45(h) [G]§ 60.45(h)(1) [G]§ 60.45(h)(2) § 60.46(a) § 60.46(b)(3)	§ 60.45(h) [G]§ 60.45(h)(1) [G]§ 60.45(h)(2)	None
OL225B1A	EU	60D-0001	SO <sub>2</sub>	40 CFR Part 60, Subpart D	§ 60.40(a)	The affected facility burns fuel (such as only gaseous fuels) that has no specific SO <sub>2</sub> emission requirements.	§ 60.45(b)(1) § 60.45(b)(4)	None	None
OL225B1A	EU	60D-0001	NO <sub>x</sub>	40 CFR Part 60, Subpart D	§ 60.44(a)(1)	On/after the §60.8 tests, no affected facility shall emit gases containing NO <sub>x</sub> , expressed as NO <sub>2</sub> , in	§ 60.45(b)(3) § 60.45(b)(4) § 60.46(a) § 60.46(b)(1)	None	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
						excess of 86 ng/J heat input (0.2 lb/MMBtu) derived from gaseous fossil fuel.	[G]§ 60.46(b)(5) [G]§ 60.46(d)(1) § 60.46(d)(5) § 60.46(d)(6) § 60.46(d)(7) ** See Periodic Monitoring Summary		
OL225B1A	EU	63DDDD-0001	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
OL225B1B	EP	R1111-0001	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(1)(C) § 111.111(a)(1)(E)	Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed.	[G]§ 111.111(a)(1)(F) ** See Periodic Monitoring Summary	None	None
OL225B1B	EU	60D-0001	PM	40 CFR Part 60, Subpart D	§ 60.42(a)(1)	On/after the §60.8 tests, no affected facility shall emit gases containing particulate matter in excess of 43 ng/J heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue.	§ 60.46(a) § 60.46(b)(1) [G]§ 60.46(b)(2) [G]§ 60.46(d)(1) § 60.46(d)(2) [G]§ 60.46(d)(3) § 60.46(d)(6) § 60.46(d)(7) ** See Periodic Monitoring Summary	None	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
OL225B1B	EU	60D-0001	PM (Opacity)	40 CFR Part 60, Subpart D	§ 60.42(a)(2)	On/after the performance tests of §60.8, no affected facility shall emit gases exhibiting greater than 20% opacity except for one six-minute period per hour of not more than 27% opacity.	§ 60.45(b)(1) § 60.45(b)(7) [G]§ 60.45(b)(7)(i) [G]§ 60.45(b)(7)(ii) § 60.45(b)(7)(iii) § 60.45(h) [G]§ 60.45(h)(1) [G]§ 60.45(h)(2) § 60.46(a) § 60.46(b)(3)	§ 60.45(h) [G]§ 60.45(h)(1) [G]§ 60.45(h)(2)	None
OL225B1B	EU	60D-0001	SO <sub>2</sub>	40 CFR Part 60, Subpart D	§ 60.40(a)	The affected facility burns fuel (such as only gaseous fuels) that has no specific SO <sub>2</sub> emission requirements.	§ 60.45(b)(1) § 60.45(b)(4)	None	None
OL225B1B	EU	60D-0001	NO <sub>x</sub>	40 CFR Part 60, Subpart D	§ 60.44(a)(1)	On/after the §60.8 tests, no affected facility shall emit gases containing NO <sub>x</sub> , expressed as NO <sub>2</sub> , in excess of 86 ng/J heat input (0.2 lb/MMBtu) derived from gaseous fossil fuel.	§ 60.45(b)(3) § 60.45(b)(4) § 60.46(a) § 60.46(b)(1) [G]§ 60.46(b)(5) [G]§ 60.46(d)(1) § 60.46(d)(5) § 60.46(d)(6) § 60.46(d)(7) ** See Periodic Monitoring Summary	None	None
OL225B1B	EU	63DDDD-0001	112(B) HAPS	40 CFR Part 63, Subpart DDDDD	§ 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD
OL225FL1	EU	R1111-	Opacity	30 TAC Chapter	§ 111.111(a)(4)(A)	Visible emissions from a	§	§ 111.111(a)(4)(A)(ii)	None

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
		0001		111, Visible Emissions		process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)		
OL225FL1	CD	60A-0001	Opacity	40 CFR Part 60, Subpart A	§ 60.18(b) § 60.18(c)(1) § 60.18(c)(2) § 60.18(c)(3)(iii) § 60.18(c)(4)(i) § 60.18(c)(6) § 60.18(e)	Flares shall comply with paragraphs (c)-(f) of § 60.18.	§ 60.18(d) § 60.18(f)(1) § 60.18(f)(2) § 60.18(f)(3) § 60.18(f)(4)	None	None
OL225FL1	CD	63A-0001	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(iii) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
OL225T110 1	EU	63YY-0005	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL225T110 2	EU	63YY-0005	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					and/or equipment specification requirements of 40 CFR Part 63, Subpart YY		requirements of 40 CFR Part 63, Subpart YY	Part 63, Subpart YY	
OL225T910	EU	63YY-0006	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL226FG1	EU	63YY-0003	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL226T202	EU	63YY-0007	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL226T701	EU	63YY-0005	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder	The permit holder shall comply with the applicable	The permit holder shall comply with	The permit holder shall comply with the	The permit holder shall comply with the applicable

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	requirements of 40 CFR Part 63, Subpart YY	the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	reporting requirements of 40 CFR Part 63, Subpart YY
OL226T702	EU	63YY-0005	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL226T914	EU	63YY-0006	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL227D301	EP	60NNN-0001a	VOC/TOC	40 CFR Part 60, Subpart NNN	§ 60.662(a)	Affected facilities shall reduce TOC emissions by 98 weight-percent or to a concentration of 20ppmv, whichever is less stringent. Introduce the stream into the flame zone of a boiler/process heater.	§ 60.663(c) § 60.663(c)(1) § 60.663(d) § 60.664(c)	§ 60.663(c)(1) § 60.663(d) § 60.665(b) § 60.665(b)(2) § 60.665(b)(2)(i) § 60.665(c) § 60.665(c)(4) § 60.665(d) § 60.665(e)	§ 60.665(a) § 60.665(b) § 60.665(b)(2) § 60.665(b)(2)(i) § 60.665(c) § 60.665(c)(4) § 60.665(k) § 60.665(l) § 60.665(l)(1) § 60.665(l)(2)

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
									§ 60.665(l)(3)
OL227D301	EP	60NNN-0001b	VOC/TOC	40 CFR Part 60, Subpart NNN	§ 60.662(b) § 60.18	Each affected facility shall combust the emissions in a flare that meets the requirements of § 60.18.	§ 60.663(b) § 60.663(b)(1) § 60.663(b)(2) § 60.664(a) § 60.664(d) [G]§ 60.664(e)	§ 60.663(b)(2) § 60.665(b) § 60.665(b)(3) § 60.665(d) § 60.665(f)	§ 60.665(a) § 60.665(b) § 60.665(b)(3) § 60.665(k) § 60.665(l) § 60.665(l)(2) § 60.665(l)(4)
OL227D301	EP	60NNN-0001c	VOC/TOC	40 CFR Part 60, Subpart NNN	§ 60.662(a)	Affected facilities shall reduce TOC emissions by 98 weight-percent or to a concentration of 20ppmv, whichever is less stringent. Introduce the stream into the flame zone of a boiler/process heater.	§ 60.663(c) § 60.663(c)(1) § 60.663(c)(2) § 60.664(a) § 60.664(b) § 60.664(b)(1) § 60.664(b)(2) § 60.664(b)(3) [G]§ 60.664(b)(4)	§ 60.663(c)(1) § 60.663(c)(2) § 60.665(b) § 60.665(b)(2) § 60.665(b)(2)(i) § 60.665(b)(2)(ii) § 60.665(c) § 60.665(c)(3) § 60.665(c)(4) § 60.665(c)(4) § 60.665(d)	§ 60.665(a) § 60.665(b) § 60.665(b)(2) § 60.665(b)(2)(i) § 60.665(b)(2)(ii) § 60.665(c) § 60.665(c)(3) § 60.665(c)(4) § 60.665(k) § 60.665(l) § 60.665(l)(1) § 60.665(l)(2)
OL227T701	EU	63YY-0007	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL229OW	EU	63YY-0008	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63,	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY



### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					requirements of 40 CFR Part 63, Subpart YY		Subpart YY		
OL229R100	EP	60RRR-0001a	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.702(b) § 60.18	For each vent stream, combust the emissions in a flare that meets the requirements of §60.18.	§ 60.703(b) § 60.703(b)(1) § 60.704(a) § 60.704(c) [G]§ 60.704(d)	§ 60.705(b) § 60.705(b)(3) § 60.705(e) § 60.705(s)	§ 60.705(a) § 60.705(b) § 60.705(b)(3) § 60.705(k) § 60.705(l) § 60.705(l)(3) § 60.705(s)
OL229R100	EP	60RRR-0001b	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.702(a) [G]§ 60.704(b)(5)	For each vent stream, reduce TOC by 98%w or to a TOC concentration of 20 ppmv, on a dry basis corrected to 3% oxygen, whichever is less stringent. If a boiler or process heater is used, introduce vent stream as specified.	§ 60.703(c) § 60.704(a) § 60.704(b) § 60.704(b)(1) § 60.704(b)(2) § 60.704(b)(3) [G]§ 60.704(b)(4)	§ 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(s)	§ 60.705(a) § 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(k) § 60.705(l) § 60.705(l)(1) § 60.705(s)
OL229R100	EP	60RRR-0001c	VOC/TOC	40 CFR Part 60, Subpart RRR	§ 60.702(a) [G]§ 60.704(b)(5)	For each vent stream, reduce TOC by 98%w or to a TOC concentration of 20 ppmv, on a dry basis corrected to 3% oxygen, whichever is less stringent. If a boiler or process heater is used, introduce vent stream as specified.	§ 60.703(c) § 60.704(a) § 60.704(b) § 60.704(b)(1) § 60.704(b)(2) § 60.704(b)(3) [G]§ 60.704(b)(4)	§ 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(s)	§ 60.705(a) § 60.705(b) § 60.705(b)(2)(i) § 60.705(c) § 60.705(c)(4) § 60.705(k) § 60.705(l) § 60.705(l)(1) § 60.705(s)
OL229T704	EU	63YY-0004	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63,	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					Subpart YY				
OL229T708	EU	63YY-0007	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL229TACT	EU	63YY-0006	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL229WW1	EU	63YY-0002	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY
OL265T1003	EU	63YY-0005	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard and/or equipment	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY

### Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					specification requirements of 40 CFR Part 63, Subpart YY		CFR Part 63, Subpart YY		
PROHCC4	EU	63YY-0001	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1100 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY

**Additional Monitoring Requirements**

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### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-0001
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
<p>Deviation Limit: The presence of visible emissions unless a Method 9 opacity test is performed within 24 hours of observing visible emissions and the source is determined to be in compliance with the 15% opacity standard.</p> <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.</p> <p>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-0001
Pollutant: PM	Main Standard: § 60.42(a)(1)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
<p>Deviation Limit: The presence of visible emissions unless a Method 9 opacity test is performed within 24 hours of observing visible emissions and the source is determined to be in compliance with the 20% opacity standard.</p> <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.</p> <p>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1A	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-0001
Pollutant: NO <sub>x</sub>	Main Standard: § 60.44(a)(1)
Monitoring Information	
Indicator: NO <sub>x</sub> Concentration	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: > 0.20 pounds per Million Btu	
<p>Periodic Monitoring Text: Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the Environmental Protection Agency's, Office of Air Quality Planning &amp; Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO<sub>x</sub> emissions shall be corrected/calculated in units of the underlying applicable emission limitation (e.g. grams per horsepower hour, pounds per MMBtu, pounds per hour, etc.)</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R1111-0001
Pollutant: Opacity	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
<p>Deviation Limit: The presence of visible emissions unless a Method 9 opacity test is performed within 24 hours of observing visible emissions and the source is determined to be in compliance with the 15% opacity standard.</p> <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.</p> <p>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.</p>	



### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-0001
Pollutant: PM	Main Standard: § 60.42(a)(1)
Monitoring Information	
Indicator: Visible Emissions	
Minimum Frequency: Once per week	
Averaging Period: n/a	
<p>Deviation Limit: The presence of visible emissions unless a Method 9 opacity test is performed within 24 hours of observing visible emissions and the source is determined to be in compliance with the 20% opacity standard.</p> <p>Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.</p> <p>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.</p> <p>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation.</p>	

### Periodic Monitoring Summary

Unit/Group/Process Information	
ID No.: OL225B1B	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-0001
Pollutant: NO <sub>x</sub>	Main Standard: § 60.44(a)(1)
Monitoring Information	
Indicator: NO <sub>x</sub> Concentration	
Minimum Frequency: Monthly	
Averaging Period: n/a	
Deviation Limit: > 0.20 pounds per Million Btu	
<p>Periodic Monitoring Text: Monitor and record the nitrogen oxide concentration in the exhaust stream using a portable analyzer to monitor nitrogen oxide. The portable analyzer shall be operated in accordance with the Environmental Protection Agency's, Office of Air Quality Planning &amp; Standards, Emission Measurement Center Conditional Test Method - Determination of Oxygen, Carbon Monoxide and Oxides of Nitrogen from Stationary Sources For Periodic Monitoring (Portable Electrochemical Analyzer Procedure) [CTM-034] (September 8, 1999). NO<sub>x</sub> emissions shall be corrected/calculated in units of the underlying applicable emission limitation (e.g. grams per horsepower hour, pounds per MMBtu, pounds per hour, etc.)</p>	

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### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL225B1A	N/A	30 TAC Chapter 112, Sulfur Compounds	Source does not burn solid fuel.
OL225B1A	N/A	40 CFR Part 60, Subpart Da	Facility is not an electric utility steam generating unit.
OL225B1A	N/A	40 CFR Part 60, Subpart Db	Facility has not been modified or reconstructed after June 19, 1984.
OL225B1B	N/A	30 TAC Chapter 112, Sulfur Compounds	Source does not burn solid fossil fuel.
OL225B1B	N/A	40 CFR Part 60, Subpart Da	Facility is not an electric utility generating unit.
OL225B1B	N/A	40 CFR Part 60, Subpart Db	Facility has not been modified or reconstructed after June 19, 1984.
OL225T1101	N/A	40 CFR Part 60, Subpart Ka	Storage tank unit does not store a petroleum liquid.
OL225T1101	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL225T1101	N/A	40 CFR Part 61, Subpart Y	Storage tank unit does not store refined or industrial grade benzene.
OL225T1101	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL225T1101	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL225T1102	N/A	40 CFR Part 60, Subpart Ka	Storage tank unit does not store a petroleum liquid.
OL225T1102	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL225T1102	N/A	40 CFR Part 61, Subpart Y	Storage tank unit does not store refined or

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			industrial grade benzene.
OL225T1102	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL225T1102	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL225T910	N/A	40 CFR Part 60, Subpart Ka	Unit does not store petroleum liquid.
OL225T910	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL225T910	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL225T910	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL225T910	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL226D105	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL226D105	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226D105	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226D201	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL226D201	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226D201	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL226D202	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL226D202	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226D202	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226FG1	N/A	40 CFR Part 60, Subpart VV	Not constructed, modified, or reconstructed after 01/05/81
OL226FG1	N/A	40 CFR Part 60, Subpart VVa	Not constructed, modified, or reconstructed after 11/07/06.
OL226FG1	N/A	40 CFR Part 61, Subpart J	If complying with Part 63 Subpart YY, compliance with Part 61 Subpart J is not required.
OL226FG1	N/A	40 CFR Part 61, Subpart V	If complying with Part 63 Subpart YY, compliance with Part 61 Subpart V is not required.
OL226FG1	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226FG1	N/A	40 CFR Part 63, Subpart H	Not part of an affected CMPU.
OL226T202	N/A	40 CFR Part 60, Subpart Ka	Does not store a petroleum liquid
OL226T202	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226T202	N/A	40 CFR Part 61, Subpart Y	Does not store refined or industrial grade benzene.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL226T202	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL226T202	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL226T701	N/A	40 CFR Part 60, Subpart Ka	Unit does not store petroleum liquid.
OL226T701	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226T701	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL226T701	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected MCPU.
OL226T701	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL226T702	N/A	40 CFR Part 60, Subpart Ka	Unit does not store petroleum liquid.
OL226T702	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226T702	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL226T702	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected MCPU.
OL226T702	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected CMPU.
OL226T914	N/A	40 CFR Part 60, Subpart Ka	Unit does not store petroleum liquid.
OL226T914	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226T914	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL226T914	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.

### Permit Shield

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Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL226T914	N/A	40 CFR Part 63, Subpart G	Not part of an affected CPMU.
OL226TNAL7	N/A	40 CFR Part 60, Subpart Kb	Capacity of storage vessel is less than 75 m3.
OL226TNAL7	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226TNAL7	N/A	40 CFR Part 61, Subpart Y	Storage tank unit does not store refined or industrial grade benzene.
OL226TNAL7	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CPMU).
OL226TNAL7	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CPMU).
OL226TNAL7	N/A	40 CFR Part 63, Subpart YY	Capacity of unit is less than 4 m3 and unit stores a liquid with a HAP vapor pressure less than 76.6 kPa.
OL226TNAL8	N/A	40 CFR Part 60, Subpart Kb	Capacity of storage unit is less than 75 m3.
OL226TNAL8	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL226TNAL8	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL226TNAL8	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL226TNAL8	N/A	40 CFR Part 63, Subpart G	Not part of an affected CPMU.
OL226TNAL8	N/A	40 CFR Part 63, Subpart YY	Unit capacity is less than 4 m3 and unit stores a liquid with a HAP vapor pressure less than 76.6 kPa.
OL227D301	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.



### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL227D301	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected CMPU.
OL227D302	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL227D302	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL227D302	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL227R301	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL227R301	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL227R301	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected MCPU.
OL227R301	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL227T701	N/A	40 CFR Part 60, Subpart Ka	Storage tank unit does not store a petroleum liquid.
OL227T701	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL227T701	N/A	40 CFR Part 61, Subpart Y	Storage tank unit does not store refined or industrial grade benzene.
OL227T701	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL227T701	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL229D101	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229D101	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL229D101	N/A	40 CFR Part 63, Subpart G	Unit is not part of an affected chemical manufacturing process unit (CMPU).
OL229D102	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D102	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D102	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D103	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D103	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D103	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D104	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D104	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D104	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D204	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D204	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D204	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D401	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D401	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229D401	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D404	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D404	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D404	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D405	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D405	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D405	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229D409	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL229D409	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229D409	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229H100	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H100	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229H101	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H101	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229H102	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H102	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229H103	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H103	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229H104	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H104	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229H105	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H105	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229H106	N/A	30 TAC Chapter 112, Sulfur Compounds	Unit does not burn liquid fuel.
OL229H106	N/A	40 CFR Part 63, Subpart DDDDD	Unit is an ethylene cracking furnace covered by 40 CFR 63, Subpart YY.
OL229OW	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229OW	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R100	N/A	40 CFR Part 60, Subpart III	Unit does not use an air oxidation process and is not an affected facility.
OL229R100	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R100	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R101	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R101	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R101	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229R101	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R102	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R102	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R102	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R102	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R103	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R103	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R103	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R103	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R104	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R104	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R104	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R104	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R105	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R105	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R105	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R105	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R106	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229R106	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R106	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R106	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R401A	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R401A	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R401A	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R401A	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229R401B	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL229R401B	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL229R401B	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229R401B	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229T704	N/A	40 CFR Part 60, Subpart Ka	Unit does not store petroleum liquid.
OL229T704	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL229T704	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL229T704	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229T704	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229T707	N/A	40 CFR Part 60, Subpart Ka	Unit has a capacity of less than 40,000

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
			gallons.
OL229T707	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL229T707	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL229T707	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229T707	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229T707	N/A	40 CFR Part 63, Subpart YY	Unit does not store liquids containing organic HAP.
OL229T708	N/A	40 CFR Part 60, Subpart Ka	Does not store a petroleum liquid.
OL229T708	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL229T708	N/A	40 CFR Part 61, Subpart Y	Does not store refined or industrial grade benzene.
OL229T708	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229T708	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL229TACT	N/A	40 CFR Part 60, Subpart Kb	Capacity of storage unit is less than 75 m3.
OL229TACT	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL229TACT	N/A	40 CFR Part 61, Subpart Y	Unit does not store refined or industrial grade benzene.
OL229TACT	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229TACT	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.

### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL229WW1	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL229WW1	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230D402	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL230D402	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230D402	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230D406	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL230D406	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230D406	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230D407	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL230D407	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230D407	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230D408	N/A	40 CFR Part 60, Subpart NNN	Not constructed, modified, or reconstructed after 12/30/83.
OL230D408	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230D408	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230R402A	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL230R402A	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL230R402A	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.



### Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

Unit/Group/Process		Regulation	Basis of Determination
ID No.	Group/Inclusive Units		
OL230R402A	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230R402B	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL230R402B	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL230R402B	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230R402B	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL230R403	N/A	40 CFR Part 60, Subpart III	Not an air oxidation process.
OL230R403	N/A	40 CFR Part 60, Subpart RRR	Not constructed, modified, or reconstructed after 06/29/90.
OL230R403	N/A	40 CFR Part 63, Subpart FFFF	Unit is not a part of an affected MCPU.
OL230R403	N/A	40 CFR Part 63, Subpart G	Not part of an affected CMPU.
OL265T1003	N/A	40 CFR Part 60, Subpart Ka	Unit does not store a petroleum liquid.
OL265T1003	N/A	40 CFR Part 61, Subpart FF	Unit is not used to manage a benzene waste stream.
OL265T1003	N/A	40 CFR Part 61, Subpart Y	Units does not store refined or industrial grade benzene.
OL265T1003	N/A	40 CFR Part 63, Subpart FFFF	Unit is not part of an affected MCPU.
OL265T1003	N/A	40 CFR Part 63, Subpart G	Unit is not part of a CMPU.
PROHCC4	N/A	40 CFR Part 63, Subpart F	Not part of an affected CMPU.
PROHCC4	N/A	40 CFR Part 63, Subpart FFFF	Unit is an affected source under 40 CFR 63, Subpart YY.

**New Source Review Authorization References**

<b>New Source Review Authorization References .....</b>	<b>49</b>
<b>New Source Review Authorization References by Emission Unit .....</b>	<b>50</b>

### New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: PSDTX332M3	Issuance Date: 05/16/2012
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 123439	Issuance Date: 10/31/2014
Authorization No.: 84724	Issuance Date: 08/19/2013
Authorization No.: 8539	Issuance Date: 12/10/2013
Authorization No.: 9301	Issuance Date: 03/18/2011
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.122	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 09/04/2000
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.475	Version No./Date: 09/04/2000
Number: 106.476	Version No./Date: 09/04/2000
Number: 106.478	Version No./Date: 09/04/2000

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
OL225B1A	AUXILIARY BOILER 74BF-901A	9301, PSDTX332M3
OL225B1B	AUXILIARY BOILER 74BF-901B	9301, PSDTX332M3
OL225FL1	BLDG 74 FLARE	123439, 84724, 8539, 106.261/09/04/2000, 106.261/11/01/2003, 106.262/09/04/2000, 106.262/11/01/2003, PSDTX332M3
OL225T1101	TANK 74FA-1101	8539, PSDTX332M3
OL225T1102	TANK 74FA-1102	8539, PSDTX332M3
OL225T910	STORAGE TANK 74FB-910	8539, 106.261/11/01/2003, 106.262/11/01/2003, 106.478/09/04/2000, PSDTX332M3
OL226D105	COLUMN 74DA-105	8539, PSDTX332M3
OL226D201	COLUMN 74DA-201	8539, PSDTX332M3
OL226D202	COLUMN 74DA-202	8539, PSDTX332M3
OL226FG1	HCC-4 EQUIPMENT LEAKS	8539, 106.261/09/04/2000, 106.261/11/01/2003, 106.262/09/04/2000, 106.262/11/01/2003, PSDTX332M3
OL226T202	TANK 74FB-202	8539, 106.261/11/01/2003, 106.262/11/01/2003, 106.478/09/04/2000, PSDTX332M3
OL226T701	TANK 74FA-701	8539, PSDTX332M3
OL226T702	TANK 74FA-702	8539, PSDTX332M3
OL226T914	TANK 74FB-914	8539, 106.261/11/01/2003, 106.262/11/01/2003, 106.472/09/04/2000, 106.478/09/04/2000, PSDTX332M3
OL226TNAL7	ADDITIVE TANK	8539, 106.262/09/04/2000, 106.478/09/04/2000, PSDTX332M3

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
OL226TNAL8	ADDITIVE TANK	8539, 106.262/09/04/2000, 106.478/09/04/2000, PSDTX332M3
OL227D301	COLUMN 74DA-301	8539, 106.261/09/04/2000, 106.261/11/01/2003, PSDTX332M3
OL227D302	COLUMN 74DA-302	8539, PSDTX332M3
OL227R301	REACTOR 74DC-301	8539, PSDTX332M3
OL227T701	TANK 74FB-701	8539, PSDTX332M3
OL229D101	COLUMN 74DA-101	8539, PSDTX332M3
OL229D102	COLUMN 74DA-102	8539, PSDTX332M3
OL229D103	COLUMN 74DA-103	8539, PSDTX332M3
OL229D104	COLUMN 74DA-104	8539, PSDTX332M3
OL229D204	COLUMN 74DA-204	8539, PSDTX332M3
OL229D401	COLUMN 74DA-401	8539, PSDTX332M3
OL229D404	COLUMN 74DA-404	8539, PSDTX332M3
OL229D405	COLUMN 74DA-405	8539, PSDTX332M3
OL229D409	COLUMN 74DA-409	8539, PSDTX332M3
OL229H100	HEATER 74BA-100	8539, PSDTX332M3
OL229H101	HEATER 74BA-101	8539, 106.261/11/01/2003, PSDTX332M3
OL229H102	HEATER 74BA-102	8539, 106.261/11/01/2003, PSDTX332M3
OL229H103	HEATER 74BA-103	8539, 106.261/11/01/2003, PSDTX332M3
OL229H104	HEATER 74BA-102	8539, 106.261/11/01/2003, PSDTX332M3

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
OL229H105	HEATER 74BA-105	8539, 106.261/09/04/2000, 106.261/11/01/2003, PSDTX332M3
OL229H106	HEATER 74BA-102	8539, 106.261/09/04/2000, 106.261/11/01/2003, PSDTX332M3
OL229OW	HCC-4 ORGANIC WASTE	8539, PSDTX332M3
OL229R100	REACTOR 74BA-100	8539, PSDTX332M3
OL229R101	REACTOR 74BA-101	8539, PSDTX332M3
OL229R102	REACTOR 74BA-102	8539, PSDTX332M3
OL229R103	REACTOR 74BA-103	8539, PSDTX332M3
OL229R104	REACTOR 74BA-104	8539, PSDTX332M3
OL229R105	REACTOR 74BA-105	8539, PSDTX332M3
OL229R106	REACTOR 74BA-106	8539, PSDTX332M3
OL229R401A	REACTOR 74DC-401A	8539, PSDTX332M3
OL229R401B	REACTOR 74DC-401A	8539, PSDTX332M3
OL229T704	TANK 74FA-704	8539, PSDTX332M3
OL229T707	TANK 74FB-707	8539, PSDTX332M3
OL229T708	TANK 74FB-708	8539, 106.261/11/01/2003, 106.262/11/01/2003, 106.472/09/04/2000, 106.478/09/04/2000, PSDTX332M3
OL229TACT	ADDITIVE TANK	8539, 106.261/11/01/2003, 106.478/09/04/2000, PSDTX332M3
OL229WW1	HCC-4 WASTEWATER	8539, PSDTX332M3

### New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
OL230D402	COLUMN 74DA-402	8539, PSDTX332M3
OL230D406	COLUMN 74DA-406	8539, PSDTX332M3
OL230D407	COLUMN 74DA-407	8539, PSDTX332M3
OL230D408	COLUMN 74DA-408	8539, PSDTX332M3
OL230R402A	REACTOR 74DC-402A	8539, PSDTX332M3
OL230R402B	REACTOR 74DC-402B	8539, PSDTX332M3
OL230R403	REACTOR 74DC-403	8539, PSDTX332M3
OL265T1003	STORAGE TANK FB-1003	8539, 106.476/09/04/2000, PSDTX332M3
PROHCC4	HCC-4 PROCESS	84724, 8539, PSDTX332M3

**Appendix A**

**Acronym List ..... 55**



## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM .....	actual cubic feet per minute
AMOC .....	alternate means of control
ARP .....	Acid Rain Program
ASTM .....	American Society of Testing and Materials
B/PA .....	Beaumont/Port Arthur (nonattainment area)
CAM .....	Compliance Assurance Monitoring
CD .....	control device
CEMS .....	continuous emissions monitoring system
CFR .....	Code of Federal Regulations
COMS .....	continuous opacity monitoring system
CVS .....	closed vent system
D/FW .....	Dallas/Fort Worth (nonattainment area)
EP .....	emission point
EPA .....	U.S. Environmental Protection Agency
EU .....	emission unit
FCAA Amendments .....	Federal Clean Air Act Amendments
FOP .....	federal operating permit
gr/100 scf .....	grains per 100 standard cubic feet
HAP .....	hazardous air pollutant
H/G/B .....	Houston/Galveston/Brazoria (nonattainment area)
H <sub>2</sub> S .....	hydrogen sulfide
ID No. ....	identification number
lb/hr .....	pound(s) per hour
MACT .....	Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr .....	Million British thermal units per hour
NA .....	nonattainment
N/A .....	not applicable
NADB .....	National Allowance Data Base
NESHAP .....	National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO <sub>x</sub> .....	nitrogen oxides
NSPS .....	New Source Performance Standard (40 CFR Part 60)
NSR .....	New Source Review
ORIS .....	Office of Regulatory Information Systems
Pb .....	lead
PBR .....	Permit By Rule
PEMS .....	predictive emissions monitoring system
PM .....	particulate matter
ppmv .....	parts per million by volume
PRO .....	process unit
PSD .....	prevention of significant deterioration
psia .....	pounds per square inch absolute
SIP .....	state implementation plan
SO <sub>2</sub> .....	sulfur dioxide
TCEQ .....	Texas Commission on Environmental Quality
TSP .....	total suspended particulate
TVP .....	true vapor pressure
U.S.C. ....	United States Code
VOC .....	volatile organic compound

**Appendix B**

**Major NSR Summary Table ..... 57**

**Major NSR Summary Table**

Permit Number: 8539/PSDTX332M3					Issuance Date: 05/16/2012		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
229H1	Furnace	SO <sub>2</sub> (6)	0.20	0.50	12		
		PM <sub>10/2.5</sub> (6)	1.50	5.50			
		CO (6)	16.00	59.30			
		NO <sub>x</sub> (6)	19.50	72.30			
		VOC	1.10	3.90			
229H2	Furnace	SO <sub>2</sub> (6)	0.20	0.50	12		
		PM <sub>10/2.5</sub> (6)	1.50	5.50			
		CO (6)	16.00	59.30			
		NO <sub>x</sub> (6)	19.50	72.30			
		VOC	1.10	3.90			
229H3	Furnace	SO <sub>2</sub> (6)	0.20	0.50	12		
		PM <sub>10/2.5</sub> (6)	1.50	5.50			
		CO (6)	16.00	59.30			
		NO <sub>x</sub> (6)	19.50	72.30			
		VOC	1.10	3.90			

**Major NSR Summary Table**

Permit Number: 8539/PSDTX332M3					Issuance Date: 05/16/2012		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
229H4	Furnace	SO <sub>2</sub> (6)	0.20	0.50	12		
		PM <sub>10/2.5</sub> (6)	1.50	5.50			
		CO (6)	16.00	59.30			
		NO <sub>x</sub> (6)	19.50	72.30			
		VOC	1.10	3.90			
229H5	Furnace	SO <sub>2</sub> (6)	0.10	0.40	12		
		PM <sub>10/2.5</sub> (6)	1.20	4.00			
		CO (6)	12.30	43.10			
		NO <sub>x</sub> (6)	15.00	52.60			
		VOC	0.90	2.90			
229H6	Furnace	SO <sub>2</sub> (6)	0.10	0.40	12		
		PM <sub>10/2.5</sub> (6)	1.20	4.00			
		CO (6)	12.30	43.10			
		NO <sub>x</sub> (6)	15.00	52.60			
		VOC	0.90	2.90			

**Major NSR Summary Table**

Permit Number: 8539/PSDTX332M3					Issuance Date: 05/16/2012		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
225FL1	Flare	SO <sub>2</sub> (6)	0.10	0.20	2, 5	2	2
		PM <sub>10/2.5</sub> (6)	0.20	0.10			
		NO <sub>x</sub> (6)	0.80	0.70			
		CO (6)	5.80	4.80			
		VOC	17.00	12.00			
265T1007	Tank	VOC	0.80	2.20	7	7	
229T708	Tank	VOC	1.00	1.1	2	2	2
226T202	Tank	VOC	15.1	0.20	2	2	2
228T981	Tank	VOC	25.10	0.10	2	2	2
229T707	Tank	VOC	0.02	0.01			
226T914	Tank	VOC	0.71	2.00	2, 7	2, 7	2
225T910	Tank	VOC	7.90	1.30	2, 7	2, 7	2
227T701	Tank	VOC	4.40	0.06	2	2	2
226T911	Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01			
226T904	Tank	VOC	0.30	0.01			

**Major NSR Summary Table**

Permit Number: 8539/PSDTX332M3					Issuance Date: 05/16/2012		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
229TACT	Tank	VOC	0.60	0.01	2	2	2
229TNAL	Tank	VOC	0.30	0.01			
229TBTZ	Tank	VOC	0.40	0.01			
226T920A	Tank	VOC	0.01	0.01			
226T920B	Tank	VOC	0.01	0.01			
226T920C	Tank	VOC	0.01	0.01			
228S981	Tank	VOC	1.80	2.40	2	2	2
226T257	Degassing Tank	VOC	0.20	0.90			
226T503	Degassing Tank	VOC	0.10	0.30			
229WW1	Process Sewer (5)	VOC	2.10	5.20	2	2	2
F226FG1	Fugitives (5)(7)	VOC	102.48	448.87	2, 8	2, 8	2
F226FG1	Fugitives (5)(8)	VOC	60.69	265.81	2, 15, 20	2, 15	2, 15, 16
229GA1	Analyzer	VOC	0.10	0.10			
225LT110	Truck Loading	VOC	25.70	1.90	2, 3, 7	2, 3, 7	2, 3
229DC401	Catalyst Regeneration	VOC	12.60	0.10			

**Major NSR Summary Table**

Permit Number: 8539/PSDTX332M3					Issuance Date: 05/16/2012		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)	Spec. Cond.	Spec. Cond.	Spec. Cond.
229TBTZ2	Tank	VOC	0.40	0.01			
229TBTZ3	Tank	VOC	0.70	0.01			
229TNAL2	Tank	Organophosphate	0.01	0.01			
229TBTZ4	Tank	VOC	0.30	0.01			
229TCIT	Tank	Citric Acid	0.20	0.01			
229H7	Furnace	CO	15.00	52.60	9, 12, 13, 17	9, 13, 17	13, 17
		NO <sub>x</sub>	7.50	26.30			
		PM/PM <sub>10/2.5</sub>	1.20	4.00			
		SO <sub>2</sub>	0.90	3.20			
		VOC	0.90	2.90			

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
- VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
- NO<sub>x</sub> - total oxides of nitrogen
- SO<sub>2</sub> - sulfur dioxide
- PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
- PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
- PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- H<sub>2</sub>SO<sub>4</sub> - sulfuric acid

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) These emissions are permitted under PSD and State.
- (7) Emission rates before implementation of 28VHP program.
- (8) Emission rates after implementation of 28VHP program/

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day\_\_\_Days/week\_\_\_Weeks/year\_\_\_or Hrs/year 8,760



**Major NSR Summary Table**

Permit Numbers: 9301/PSDTX332M3					Issuance Date: 03/18/2011		
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
			lbs/hour	TPY (4)			
225B1A	Boiler 330 MMBtu/hr	NO <sub>x</sub>	64.80	283.8	3, 6, 7, 9	3, 10, 11	3, 8
		CO	27.80	79.5			
		PM	15.00	65.7			
		VOC	1.82	8.0			
		SO <sub>2</sub>	64.00	280.0			
225B1B	Boiler 330 MMBtu/hr	NO <sub>x</sub>	64.80	283.8	3, 6, 7, 9	3, 10, 11	3, 8
		CO	27.80	79.5			
		PM	15.00	65.7			
		VOC	1.82	8.0			
		SO <sub>2</sub>	64.00	280.0			

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.  
 (2) Specific point source name. For fugitive sources, use area name or fugitive source name.  
 (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1  
       NO<sub>x</sub> - total oxides of nitrogen  
       SO<sub>2</sub> - sulfur dioxide  
       PM - total particulate matter, suspended in the atmosphere  
       CO - carbon monoxide  
 (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Zak Covar, *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 10, 2013

MS STANCY SIMPSON, PE  
MANAGER ENVIRONMENTAL AFFAIRS DEPARTMENT  
EASTMAN CHEMICAL COMPANY  
PO BOX 7444  
LONGVIEW TX 75607-7444

Re: Permit Alteration  
Permit Number: 8539  
Correct Clerical Error  
Longview, Harrison County  
Regulated Entity Number: RN100219815  
Customer Reference Number: CN601214406  
Account Number: HH-0042-M  
Associated Permit Number: PSDTX332M3

Dear Ms. Simpson:

This is in response to your letter received October 10, 2013, requesting alteration of the representations of the above-referenced permit. We understand that you are clarifying that Permit No. PSDTX332M3 should be associated with Permit Nos. 8539 and 9301 and should not be associated with Permit No. 8522, which is currently held by Westlake Longview Corporation.

As indicated in Title 30 Texas Administrative Code § 116.116(c) [30 TAC § 116.116(c)], and based on our review, Permit Number 8539 is altered. Please attach this letter to your permit.

Your cooperation in this matter is appreciated. If you need further information or have any questions, please contact Ms. Kristi Mills-Jurach, P.E. at (512) 239-1261 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Ms. Stancy Simpson, PE

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December 10, 2013

Re: Permit Number: 8539

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Wilson". The signature is fluid and cursive, with a large initial "M" and a long, sweeping underline.

Michael Wilson, P.E., Director  
Air Permits Division  
Office of Air  
Texas Commission on Environmental Quality

MPW/km

Enclosure

cc: Air Section Manager, Region 5 - Tyler  
Air Permits Section Chief, New Source Review, Section (6PD-R), U.S. Environmental  
Protection Agency, Region 6, Dallas

Project Number: 200278

## SPECIAL CONDITIONS

Permit Numbers 8539 and PSDTX332M3

### Emission Standards

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table. **(PSD/State)**

### Federal Applicability

2. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants (NESHAP) for ethylene production units as outlined in Title 40 Code of Federal Regulations (40 CFR) Part 63, Subpart YY 63.1103(e). **(5/12)**
3. These facilities shall comply with all applicable requirements of EPA regulations on NESHAPs promulgated for Benzene Transfer Operations in 40 CFR Part 61, Subparts A and BB. **(5/12)**

### Operation Practices and Limitations

4. The service of Tanks FB-910, 202, 708, 981, 707, 914, 1001, and 1007 in this permit is limited to the storage of the chemicals appearing on attached Table 1 or chemicals that are covered by one of the Texas Commission on Environmental Quality (TCEQ) standard exemptions. Storage of other chemicals is prohibited unless prior approval for such storage is obtained from the Executive Director of the TCEQ. It will not be necessary to obtain reapproval for chemicals previously approved for storage in a specific tank. A revised Table 7 shall be sent to the TCEQ with any request for prior approval of the storage of other chemicals. **(5/12)**
5. Flares shall be designed and operated in accordance with 40 CFR § 60.18 including specifications of minimum heating value of the waste gas, maximum tip velocity, and pilot flame monitoring. If necessary, to ensure adequate combustion, sufficient fuel gas shall be added to make the gases combustible. An infrared or ultraviolet monitor is considered equivalent to a thermocouple for flame monitoring purposes.
6. Storage tanks subject to 40 CFR Part 63 Subpart YY shall be exempt from the requirements of Special Condition No. 7A through G. **(5/12)**

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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### Storage and Loading of Volatile Organic Compounds (VOC)

7. These conditions shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.5 psia at the maximum expected operating temperature or (2) to storage tanks smaller than 25,000 gallons or (3) to storage tanks vented to a flare designed to meet 40 CFR § 60.18.
  - A. An internal floating roof or equivalent control shall be installed on all tanks.
  - B. An open top tank containing a floating roof which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weather shield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.
  - C. For any tank equipped with a floating roof, the integrity of the floating roof seals shall be verified annually and records maintained to describe dates, seal integrity, and corrective actions taken.
  - D. Compliance with this condition shall supersede the requirements set forth in Special Condition No. 7C above. The holder of this permit shall verify that the internal roof in Storage Tank FB1001 is afloat by measuring the distance between the top of the tank and the floating roof with a tape and plumb bob. The measured distance shall be compared with the expected distance calculated from the tank height and the liquid level gauge reading. The inspector shall verify that the plumb bob has not contacted liquid. Failure of any of these criteria shall require the holder of this permit to contact the TCEQ Regional Office and initiate alternative verification or repair activities.

The holder of this permit shall conduct this inspection annually. Records of the inspection results and documentation of repair activities shall be maintained in accordance with the recordkeeping requirements of General Condition No. 7.
  - E. The floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute (API) Code 650, Appendix C, or an equivalent degree of flotation, except that an internal floating cover need not be designed to meet rainfall support requirements.
  - F. Uninsulated tank exterior surfaces exposed to the sun shall be white.
  - G. Emissions for tanks and loading operations shall be calculated annually using:
    - (a) AP-42, 5th Edition, "Compilation of Air Pollution Emission Factors, Chapter 7 - Organic Liquid Storage Tanks (September 1997)" for annual emissions and
    - (b) equation V-2 from the TCEQ publication titled "Technical Guidance Package for

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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Chemical Sources-Storage Tanks" (dated February 1995) for short-term emissions. Records of these calculations shall be maintained at the plant site for at least two years and be made available to representatives of the TCEQ upon request.

- H. In lieu of the requirements of paragraph G, the holder of this permit may keep records of the year-to-date throughput and annual throughput for the prior 12-month period for storage tanks.

### Monitoring

#### Piping, Valves, Flanges, Pumps, and Compressors in VOC Service

- 8. These conditions shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.5 psia at 100 degrees F or at process operating temperature if less than 100 degrees F or (2) to piping and valves smaller than two inches nominal size.
  - A. Piping connections in VOC service shall be welded or flanged. Screwed connections are permissible only on piping connections smaller than two-inch diameter.
  - B. New and reworked valves installed as replacements at this facility in VOC service shall be tested prior to operation by hydrostatic or gas testing in-place or by an appropriate bench test such that the valves do not leak to the atmosphere during testing.
  - C. Valves operated routinely and in VOC service shall be monitored by leak checking for fugitive emissions at least quarterly using conventional soap testing or a VOC detector.
  - D. Except as may be provided for in the special conditions of this permit, all pump and compressor shafts shall be equipped with a shaft sealing system that prevents or monitors emissions of VOC from the seal. Seal systems designed and operated to prevent emissions need not be monitored. Seals emitting VOC shall be monitored with a VOC leak detector at least quarterly or monitored with an automatic seal failure detection system.
  - E. Damaged or leaking valve, compressor, and pump seals found to be emitting VOC in excess of that expected for seals in good condition are to be identified by tagging and replaced or repaired at the earliest opportunity and no later than during the next scheduled shutdown.
  - F. The results of the required fugitive monitoring and maintenance program shall be made available to the Executive Director of the TCEQ or his designated

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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representative upon request. Records shall indicate appropriate dates, test methods, results, and corrective actions taken.

- G. In lieu of items D through G of this condition, the holder of this permit may implement the fugitive monitoring requirements for petroleum refineries in Title 30 Texas Administrative Code Chapter 115.
9. Pyrolysis Furnace OL229H7 shall be fired at a rate not exceeding 150 million Btu per hour (MMBtu/hr) on an average hourly basis. A continuous flow meter on the fuel stream to this furnace shall be maintained to calculate the average firing rate of this furnace in MMBtu/hr. The firing rate shall be calculated and recorded daily and monthly to demonstrate compliance with the conditions of this permit. **(5/12)**

The flow meter shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 5 percent.

Quality-assured (or valid) data must be generated when the pyrolysis furnace is operating. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the pyrolysis furnace is operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

10. Nitrogen oxides (NO<sub>x</sub>) emissions from OL229H7 shall not exceed a 0.05 lb/MMBtu (based on Higher Heating Value) on an average hourly basis when operating at firing rates that are greater than 80% of the authorized 150 million Btu per hour firing rate. At firing capacities below 120 MMBtu/hr, NO<sub>x</sub> emissions shall not exceed the permitted levels listed in the attached maximum allowable emission rates table (MAERT). **(5/12)**
11. Carbon monoxide (CO) emissions from OL229H7 shall not exceed a 0.05 lb/MMBtu (based on Higher Heating Value) on an average hourly basis when operating at firing rates that are greater than 80% of the authorized 150 million Btu per hour firing rate. At firing capacities below 120 MMBtu/hr, CO emissions shall not exceed the permitted levels listed in the attached MAERT. **(5/12)**
12. The combined fuel gas hydrogen sulfide content shall not exceed 0.1 grain per dry standard cubic foot (equivalent to 160 ppmv hydrogen sulfide).

The combined fuel gas shall be sampled every 6 months to determine H<sub>2</sub>S or total sulfur content. Test results from the fuel supplier may be used to satisfy this requirement. **(5/12)**

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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13. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> from Pyrolysis Furnace 229H7. **(5/12)**

A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.

B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:

- (1) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, ' 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
- (2) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.

C. The monitoring data shall be reduced to an hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the



## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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permit allowable emission rates in pounds per hour and lb/MMBtu (hourly average) at least once every week

- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
  - E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.
  - F. Quality-assured (or valid) data must be generated when the Pyrolysis Furnace 229H7 is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the Pyrolysis Furnace 229H7 operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.
14. Special Condition No. 15 below shall only apply to non-tubing sized piping, but will not become effective until 12 months following the date that feed is first introduced into the new OL229H7 furnace. Prior to this date, Special Condition No. 8 shall remain in effect. (5/12)

### Piping, Valves, Connectors, Pumps, Agitators, and Compressors - 28VHP

15. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment: (5/12)
- A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pound per square inch, absolute (psia) at 68EF or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made readily available upon request.

The exempted components may be identified by one or more of the following methods:

- (1) piping and instrumentation diagram (PID);
- (2) a written or electronic database or electronic file;

## SPECIAL CONDITIONS

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- (3) color coding;
  - (4) a form of weatherproof identification; or
  - (5) designation of exempted process unit boundaries.
- B. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.
- D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by 30 TAC Chapter 115, shall be identified in a list to be made readily available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above. If an unsafe-to-monitor component is not considered safe to monitor within a calendar year, then it shall be monitored as soon as possible during safe-to-monitor times. A difficult-to-monitor component for which quarterly monitoring is specified may instead be monitored annually.
- E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, the second valve shall be closed.
- F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. If a relief valve is equipped with rupture disc, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity.

## SPECIAL CONDITIONS

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A check of the reading of the pressure-sensing device to verify disc integrity shall be performed at least quarterly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

The gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, Appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. Alternatively, if a mixture of VOCs is being monitored, the response factor shall be demonstrated to be less than 10 for the average composition of the process unit fluid. This demonstration is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

Replacements for leaking components shall be re-monitored within 15 days of being placed back into VOC service.

- G. Except as may be provided for in the special conditions of this permit, all pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly or be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. Seal systems designed and operated to prevent emissions or seals equipped with an automatic seal failure detection and alarm system need not be monitored. These seal systems may include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.
- H. Damaged or leaking valves or connectors found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. Damaged or leaking pump, compressor, and agitator seals found to be emitting VOC in excess of 2,000 ppmv or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A first attempt to repair the leak must be made within 5 days and a record of the attempt shall be maintained.

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- I. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging within 15 days of the detection of the leak. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC § 115.782(c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown and subsequent startup as calculated in accordance with 30 TAC § 115.782(c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified. The Executive Director or his designated representative may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.
  - J. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times, test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator's log or equivalent.
  - K. Alternative monitoring frequency schedules of 30 TAC §§ 115.352 - 115.359 or National Emission Standards for Organic Hazardous Air Pollutants, 40 CFR Part 63, Subpart UU, may be used in lieu of Items F through G of this condition.
  - L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standard (NSPS), or an applicable NESHAPS and does not constitute approval of alternative standards for these regulations.
16. The delay of repair (DOR) cumulative daily emission calculations comparison with unit shutdown and subsequent startup emissions, and notification requirements in Special Condition No. 15, paragraph I shall not apply until twenty four months following the initial startup and subsequent operation of the new OL229H7 furnace. Also, as an alternative to comparing the VOC emission rate of the process fugitive components on the DOR list to the total VOC emissions that would occur during the next scheduled

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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process unit shutdown and subsequent startup, all components on the DOR list subject to Special Condition No. 15 may be compared to fifty percent of the total process fugitive components VOC hourly allowable rate on the MAERT in order to determine if the TCEQ Regional Manager is to be notified.

17. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the new OL229H7 furnace to demonstrate compliance with the applicable hourly NO<sub>x</sub> and CO limits listed in the attached MAERT. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and the EPA Reference Methods. (5/12)

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for 40 CFR Part 60 testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
  - (1) Proposed date for pretest meeting.
  - (2) Date sampling will occur.
  - (3) Name of firm conducting sampling.
  - (4) Type of sampling equipment to be used.
  - (5) Method or procedure to be used in sampling.
  - (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
  - (7) Procedure/parameters to be used to determine worst case emissions (such as furnace firing rate). These operating parameters are to be monitored and recorded during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from the new OL229H7 furnace to be tested for include (but are not limited to) NO<sub>x</sub>.
- C. Sampling shall occur within 90 days after achieving the maximum operating rate, but no later than 180 days after initial start-up and subsequent operation of the new OL229H7 furnace at such other times (as may be required by the TCEQ Executive

## SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

- D. The facility being sampled shall operate at a firing capacity that is expected to cause maximum emissions for each air contaminant required to be tested during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the maximum average hourly firing capacity exceeds by more than 10% of the maximum average hourly firing rate achieved and recorded during the performance test, , stack sampling shall be performed at the higher firing capacities within 120 days. Alternatively, until such additional testing is performed, the furnace can be operated at a maximum average hourly firing capacity not to exceed 10% above the maximum firing rate achieved during the performance test. Additionally, this sampling may be waived by the TCEQ Air Section Manager for the region.

- E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

- (1) One copy to the appropriate TCEQ Regional Office.
- (2) One copy to each local air pollution control program.

18. Sampling ports and platform(s) shall be incorporated into the design of the new OL229H7 furnace according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" of the TCEQ Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director. **(5/12)**
19. With respect to Special Condition No. 15, new and reworked is meant to apply to major changes in piping. It is not intended to apply to minor activities including but not limited to: installation/replacement of small number of valves and flanges; minor repairs; gasket replacement; repair/replacement of small sections of piping, etc. Also, "process pipelines" does not apply to underground process sewer lines, cooling tower water, fire water, etc. Additionally, the requirement for new and reworked buried connectors to be welded will not apply if compliance would require a process unit shutdown or would create a safety

SPECIAL CONDITIONS

Permit Number 8539 and PSDTX332M3

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issue including (but not limited to) close proximity of other process pipelines and equipment or unsafe access to the piping. **(5/12)**

20. In lieu of the requirement to gas or hydraulic test new and reworked piping connections at operating pressure or monitor within 15 days contained in Special Condition No. 15, new and reworked piping connections may be tested in accordance with the currently approved "System Leak Test" procedure to look for leaks. This testing will be followed up by an AVO inspection within 7 days of the piping being placed back into service. **(5/12)**

Dated May 16, 2012

Table 1

APPROVED MATERIAL FOR STORAGE

Permit No. 8539/PSD-TX-332M3

Raffinate  
Naphtha  
Pyrolysis gasoline/DAC-A  
Pyrolysis tars  
Flux oil/DAC-B3/Diesel  
Lube oil  
Purge oil  
Injection oil  
Slop oil  
Natural gasoline  
Plant condensate  
Field condensate  
Gas oil  
Wash oil/Advasol

Dated May 16, 2012



## Emission Sources - Maximum Allowable Emission Rates

Permit Number 8539 and PSDTX332M3

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

### Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lbs/hour	TPY (4)
229H1	Furnace	SO <sub>2</sub> (6)	0.20	0.50
		PM <sub>10/2.5</sub> (6)	1.50	5.50
		CO (6)	16.00	59.30
		NO <sub>x</sub> (6)	19.50	72.30
		VOC	1.10	3.90
229H2	Furnace	SO <sub>2</sub> (6)	0.20	0.50
		PM <sub>10/2.5</sub> (6)	1.50	5.50
		CO (6)	16.00	59.30
		NO <sub>x</sub> (6)	19.50	72.30
		VOC	1.10	3.90
229H3	Furnace	SO <sub>2</sub> (6)	0.20	0.50
		PM <sub>10/2.5</sub> (6)	1.50	5.50
		CO (6)	16.00	59.30
		NO <sub>x</sub> (6)	19.50	72.30
		VOC	1.10	3.90
229H4	Furnace	SO <sub>2</sub> (6)	0.20	0.50
		PM <sub>10/2.5</sub> (6)	1.50	5.50
		CO (6)	16.00	59.30
		NO <sub>x</sub> (6)	19.50	72.30
		VOC	1.10	3.90

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lbs/hour	TPY (4)
229H5	Furnace	SO <sub>2</sub> (6)	0.10	0.40
		PM <sub>10/2.5</sub> (6)	1.20	4.00
		CO (6)	12.30	43.10
		NO <sub>x</sub> (6)	15.00	52.60
		VOC	0.90	2.90
229H6	Furnace	SO <sub>2</sub> (6)	0.10	0.40
		PM <sub>10/2.5</sub> (6)	1.20	4.00
		CO (6)	12.30	43.10
		NO <sub>x</sub> (6)	15.00	52.60
		VOC	0.90	2.90
225FL1	Flare	SO <sub>2</sub> (6)	0.10	0.20
		PM <sub>10/2.5</sub> (6)	0.20	0.10
		NO <sub>x</sub> (6)	0.80	0.70
		CO (6)	5.80	4.80
		VOC	17.00	12.00
265T1007	Tank	VOC	0.80	2.20
229T708	Tank	VOC	1.00	1.1
226T202	Tank	VOC	15.1	0.20
228T981	Tank	VOC	25.10	0.10
229T707	Tank	VOC	0.02	0.01
226T914	Tank	VOC	0.71	2.00
225T910	Tank	VOC	7.90	1.30
227T701	Tank	VOC	4.40	0.06
226T911	Tank	H <sub>2</sub> SO <sub>4</sub>	0.01	0.01

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lbs/hour	TPY (4)
226T904	Tank	VOC	0.30	0.01
229TACT	Tank	VOC	0.60	0.01
229TNAL	Tank	VOC	0.30	0.01
229TBTZ	Tank	VOC	0.40	0.01
226T920A	Tank	VOC	0.01	0.01
226T920B	Tank	VOC	0.01	0.01
226T920C	Tank	VOC	0.01	0.01
228S981	Tank	VOC	1.80	2.40
226T257	Degassing Tank	VOC	0.20	0.90
226T503	Degassing Tank	VOC	0.10	0.30
229WW1	Process Sewer (5)	VOC	2.10	5.20
F226FG1	Fugitives (5)(7)	VOC	102.48	448.87
F226FG1	Fugitives (5)(8)	VOC	60.69	265.81
229GA1	Analyzer	VOC	0.10	0.10
225LT110	Truck Loading	VOC	25.70	1.90
229DC401	Catalyst Regeneration	VOC	12.60	0.10
229TBTZ2	Tank	VOC	0.40	0.01
229TBTZ3	Tank	VOC	0.70	0.01
229TNAL2	Tank	Organophosphate	0.01	0.01
229TBTZ4	Tank	VOC	0.30	0.01
229TCIT	Tank	Citric Acid	0.20	0.01

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates *	
			lbs/hour	TPY (4)
229H7	Furnace	CO	15.00	52.60
		NO <sub>x</sub>	7.50	26.30
		PM/PM <sub>10/2.5</sub>	1.20	4.00
		SO <sub>2</sub>	0.90	3.20
		VOC	0.90	2.90

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.
  - VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
  - NO<sub>x</sub> - total oxides of nitrogen
  - SO<sub>2</sub> - sulfur dioxide
  - PM - total particulate matter, suspended in the atmosphere, including PM<sub>10</sub> and PM<sub>2.5</sub>, as represented
  - PM<sub>10</sub> - total particulate matter equal to or less than 10 microns in diameter, including PM<sub>2.5</sub>, as represented
  - PM<sub>2.5</sub> - particulate matter equal to or less than 2.5 microns in diameter
  - CO - carbon monoxide
  - H<sub>2</sub>SO<sub>4</sub> - sulfuric acid
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) These emissions are permitted under PSD and State.
- (7) Emission rates before implementation of 28VHP program.
- (8) Emission rates after implementation of 28VHP program/

\* Emission rates are based on and the facilities are limited by the following maximum operating schedule:

Hrs/day \_\_\_ Days/week \_\_\_ Weeks/year \_\_\_ or Hrs/year 8,760

Date: May 16, 2012



# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## AIR QUALITY PERMIT



*A PERMIT IS HEREBY ISSUED TO*  
**Eastman Chemical Company**  
*AUTHORIZING THE CONTINUED OPERATION OF*  
**Hydrocarbon Cracking Plant 4 Boilers**  
*LOCATED AT* Longview, Harrison County, Texas  
**LATITUDE 32° 29' 17" LONGITUDE 094° 41' 24"**

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code § 116.116 (30 TAC § 116.116)]
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1) the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120(a), (b) and (c)]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify to the Office of Permitting and Registration the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction; comply with any additional recordkeeping requirements specified in special conditions attached to the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]
9. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification for upsets and maintenance in accordance with §§ 101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC § 116.115(b)(2)(G)]
10. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules, regulations, and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. This permit may be appealed pursuant to 30 TAC § 50.139.
12. This permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
13. There may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
14. **Emissions** from this facility must not cause or contribute to a condition of "air pollution" as defined in TCAA § 382.003(3) or violate TCAA § 382.085, as codified in the Texas Health and Safety Code. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.

PERMIT 9301/PSDTX332M3

Date: March 18, 2011

  
For the Commission

## SPECIAL CONDITIONS

Permit No. 9301/PSD-TX-332M3

### EMISSION STANDARDS AND OTHER SPECIFICATIONS

1. This permit covers only those sources of emissions listed in the attached table entitled A Emission Sources - Maximum Allowable Emission Rates, @ and those sources are limited to the emission limits and other conditions specified in that attached table.
2. This permit authorizes the operation of two Boilers, Emission Point Nos. 225B1A and 225B1B.
3. These facilities shall comply with all requirements of Environmental Protection Agency Regulations on Standards of Performance for New Stationary Sources promulgated for Fossil-Fuel-Fired Steam Generators in Title 40 Code of Federal Regulations Part 60, Subparts A and D.
4. In each boiler, the permittee is authorized to burn natural gas, off-gas or liquid fuel (pyrolysis tar or flux oil).
5. When burning liquids in the boilers, flux oil for the auxiliary boilers is limited to first-run refinery oils and fuels and to the cracking plant co-product, DAC-B3, which contains no more than 10 parts per million of total chlorinated compounds and no more than 10 parts per million each of heavy metals. .
6. If burning liquids, an analysis shall be performed weekly to determine the total sulfur content, calculated as weight percent sulfur, of the liquid boiler fuel stream.

### CONTINUOUS DETERMINATION OF COMPLIANCE

7. The holder of this permit shall, upon written request by Texas Commission on Environmental Quality (TCEQ), perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the auxiliary boilers. Sampling shall be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable Environmental Protection Agency Code of Federal Regulations procedures. Any deviations from those procedures shall be approved by the TCEQ Executive Director prior to sampling. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

Air contaminants to be tested for, at full load, would include (but not be limited to)

## SPECIAL CONDITIONS

Permit No. 9301/PSD-TX-332M3

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nitrogen oxides, sulfur oxides, and particulate matter.

8. If the heat input rate to either boiler exceeds, by more than 10 percent, the 304 million Btu per hour maintained during sampling, the company must notify, in writing, the appropriate Regional Office of the TCEQ; and the source may be subject to additional sampling to demonstrate continued compliance with all state and federal regulations.
9. A measurement of nitrogen oxides (NO<sub>x</sub>) concentration of stationary vents from each of the boilers in operation shall be conducted by portable analyzer at least once during each calendar month unless the boiler is not operating for the entire month. The portable analyzer shall be operated in accordance with the Environmental Protection Agency's Conditional Test Method CTM-034. NO<sub>x</sub> emissions shall be corrected/calculated in units of pounds per hour.

## RECORDKEEPING

10. Records shall be kept for at least five years and shall be made available to the TCEQ Executive Director or his designated representative upon request:
  - A. The flow rate of natural and/or plant fuel gas.
  - B. The flow rate and total sulfur content of each auxiliary boiler liquid fuel stream, when burning liquids.
  - C. The calculation of total sulfur content required by Special Condition No. 6.
  - D. The results of NO<sub>x</sub> measurements required by Special Condition No.9.
11. The following documents shall be kept at the plant site and made available at the request of personnel from the TCEQ or any local air pollution control agency having jurisdiction:
  - A. A copy of this permit
  - B. The August 2010 permit renewal application.

SPECIAL CONDITIONS

Permit No. 9301/PSD-TX-332M3

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- C. Reports of emission testing performed according to Special Condition No. 7 until superceded by subsequent sampling and testing.

Dated March 18, 2011



# EMISSION SOURCES - MAXIMUM ALLOWABLE EMISSION RATES

Permit Number 9301

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

## AIR CONTAMINANTS DATA

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
225B1A	Boiler 330 MMBtu/hr	NO <sub>x</sub>	64.80	283.8
		CO	27.80	79.5
		PM	15.00	65.7
		VOC	1.82	8.0
		SO <sub>2</sub>	64.00	280.0
225B1B	Boiler 330 MMBtu/hr	NO <sub>x</sub>	64.80	283.8
		CO	27.80	79.5
		PM	15.00	65.7
		VOC	1.82	8.0
		SO <sub>2</sub>	64.00	280.0

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO<sub>x</sub> - total oxides of nitrogen

SO<sub>2</sub> - sulfur dioxide

PM - total particulate matter, suspended in the atmosphere

CO - carbon monoxide

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

Date: March 18, 2011